of being infected with HBV than other age groups. Stratified by race, Asian patients were more likely to be diagnosed with HBV. In addition, female patients residing in the Northeast were at higher risk for an HBV diagnosis.

PIN17

PROSPECTIVE COMPARISON OF CLINICAL OUTCOMES OF COMMUNITY-ASSOCIATED METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (CA-MRSA) AND METHICILLIN-SUSCEPTIBLE STAPHYLOCOCCUS AUREUS (CA-MSSA) SKIN AND SOFT TISSUE INFECTIONS (SSTIS): A STARNET STUDY

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OBJECTIVES: CA-MRSA has become increasingly common; however, clinical characteristics and outcomes differentiating CA-MRSA from CA-MSSA are unclear. We compared long-term outcomes of adults with CA-MRSA to those with CA-MSSA. **METHODS:** This was a prospective, observational study in 13 primary care clinics within the South Texas Ambulatory Research Network (STARNet). Classification of MRSA and MSSA, and antibiotic susceptibility were determined using the Vitek System (bioMérieux). Treatment failure was defined as one of the following within 90 days of the initial visit: (1) change in antibiotic therapy, (2) incision and drainage (I&D), (3) SSTI at a new site, (4) SSTI at the same site, (5) emergency department visit, or (6) hospitalization. Patients were considered to have "moderate or complicated" SSTIs if they had a lesion ≥ 5 cm in diameter or diabetes mellitus. Comparisons between groups were performed using the $\chi 2$ test and Student's t test, as appropriate. **RESULTS:** Among 104 patients with community-associated *Staphylococcus aureus* SSTIs, the overall treatment failure rate at 90 days was 20%. The occurrence of treatment failure was similar among patients with CA-MRSA infections and those with CA-MSSA infections (13 of 68 [19%] vs. 8 of 36 [22%] patients; P=0.71). No significant differences were found in patient demographics, clinical characteristics including infection severity and treatment approach, or type of treatment failure. Patients with moderate or complicated SSTIs (P=0.03), and those who described signs and symptoms of infection for > 7 days prior to initial clinic visit (P=0.02), were associated with treatment failure. **CONCLUSIONS:** Although it is believed that patients with CA-MRSA SSTIs may have more serious outcomes than CA-MSSA SSTIs, we found similar outcomes in these two groups in the primary care setting. Treatment failures were associated with infection severity and duration of infection for seven days or longer prior to seeking care.

PIN18

LOW BONE MINERAL DENSITYIS ASSOCIATED WITH INCREASED RISK OF INCIDENT FRACTURE IN HIV+ ADULTS

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OBJECTIVES: Although the prevalence of low bone mineral density (BMD) and bone fractures are increased among HIV-infected adults compared with the general population, no study has yet characterized their causal association in the context of HIV infection. **METHODS:** We analyzed available dual energy X-ray absorptiometry (DEXA) values of the hip (left femoral neck) and clinical data collected prospectively during 2004-2012 from two CDC-sponsored HIV cohort studies, the HOPS and the SUN Study. We assessed factors associated with low BMD (osteopenia or osteoporosis, defined by T-scores of -1.0 to >-2.5, and ≤ -2.5, respectively), using the Jochkheere-Terpstra test for ordered alternatives for continuous variables and the Cochran-Armitage test for categorical variables. We analyzed the association of low BMD with subsequent incident fractures using Cox proportional hazards regression. **RESULTS:** Among 1008 patients (median age 42 [interquartile range (IQR)35-48] years, 83% male, 67% non-Hispanic white, median CD4+ cell count [CD4] 408 cells/mm^3 [IQR 254-598]), 36.3% (n=366) had osteopenia and 2.9% (n=29) osteoporosis. During 5,032 person-years of observation after DEXA scanning, 95 incident fractures occurred, predominantly rib/sternum (n=18), hand (n=17), foot (n=15) and wrist (n=11). Low BMD was significantly (p<0.05) associated with age, lower nadir CD4, history of fracture, and male-male sex HIV transmission risk. In unadjusted analyses, age, current or prior tobacco smoking, hepatitis C co-infection, history of fracture, and low BMD (osteopenia or osteoporosis) were significantly associated with increased hazard of new fracture. In multivariable analyses, only osteoporosis (adjusted hazard ratio [aHR] 3.04, 95% confidence interval [CI] 1.47-6.30) and age (aHR 1.35 per 10 years, 95% CI 1.07-1.70) remained associated with incident fracture. **CONCLUSIONS:** In a large convenience sample of relatively young HIV-infected adults in the U.S., low baseline BMD and increasing age were strongly associated with elevated risk of incident fracture, highlighting the potential value of DEXA screening in this population.

PIN19

DEVELOPMENT OF RISK-INDEX TOOL TO PREDICT SURGICAL SITE INFECTIONS

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OBJECTIVES: Surgical site infections (SSIs) are common complications following surgery that can extend patients' hospital stay and increase hospital costs, the risk of morbidity, mortality and of intensive care treatment. Due to the high emergence of resistant bacteria, more attention is required preoperatively and intraoperatively to prevent SSIs. The objective of the study was to develop a simple tool that quantifies the risk of SSI. **METHODS:** The data for this study were obtained from the National Surgical Quality Improvement Program (NSQIP) database at the Jewish General Hospital (JGH) in Montreal. The sample included patients undergoing surgery between November 2009 and December 2011. Bivariate analyses and stepwise multivariate logistic regression were used to identify risk factors that were independently associated with SSI risk. Logistic regression models with ROC curve analysis were used for the development of a risk-index tool for SSI. **RESULTS:** Male gender (OR=1.854, p=0.005), inpatient status (OR=9.491, p<0.001), hypertension (OR=2.464, p<0.001), corticosteroid use (OR=2.485, p=0.042) and partial or total dependence for everyday activities prior to surgery (OR=2.577, p=0.047) were independent predictors for SSI and were included in the SSI-risk tool. The SSI-risk tool has a range from 0 to 100. Scores below 43.17, between 43.17 and 63.40 and above 63.40 represent a low, moderate and high risk for SSI development, respectively. Compared to low-risk patients, moderate-risk patients had a relative risk of 3.963 (95% CI=2.58-6.08, p<0.001) and high-risk patients had a relative risk of 6.48 (95% CI=4.16-10.10, p<0.001) of developing an SSI. Overall, 3% of low-risk patients, 10% of moderate-risk patients and 16% of high-risk patients developed an SSI. **CONCLUSIONS:** In this study, a simple risk tool for quantifying SSI risk was developed. The tool has been validated for the JGH population. Further validation in other populations will be conducted.

PIN20

NEW FRACTURE RISK AND FRAX 10-YEAR PROBABILITY OF FRACTURE IN HIV-INFECTED ADULTS

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OBJECTIVES: FRAX reliably predicts 10-year fracture risk for adults in the general population. However, its utility for HIV-infected adults has not been assessed. **METHODS:** Using dual energy X-ray absorptiometry (DEXA) BMD values of the left femoral neck and clinical data collected prospectively during 2004-2012 from two CDC-sponsored HIV cohorts, we calculated the initial FRAX 10-year risk of a major osteoporotic fracture (MOF) (i.e., of the hip, spine, forearm, or shoulder), assessed rates of any new bone fracture and MOF per 100 person-years (100py) of follow-up stratified by initial FRAX-score intervals, and used Cox proportional hazards models to identify risk factors for new fractures. **RESULTS:** Among 1006 participants, 83% were male, 67% were non-Hispanic white, median age was 42 years, median CD4+ cell count was 408 cells/mm^3, median BMD was 0.90 g/cm^2, and median FRAX score was 1.9; FRAX scores were higher for those with subsequent fracture vs. those without (p<0.01). During observation after initial DEXA, 95 participants (9.4%) had a new fracture: 7.1% occurred among persons with FRAX score <3% (1.39/100py); 15.3% among persons with FRAX score ≥3% (3.27/100py). MOF occurred among 1.5% of persons with FRAX score <3% (0.30/100py) and 4.9% of persons with FRAX score ≥3% (1.04/100py). In multivariate analyses, having prior fracture (adjusted hazard ratio [aHR] 2.02, 95% confidence interval [CI]: 1.09-3.71), older age (aHR 1.30 per 10 years, CI: 1.04-1.62), and lower BMD (aHR 0.14 per g/cm^2, CI: 0.03-0.59) were associated with risk of any new fracture. In a separate model, having FRAX score ≥ 3% vs. FRAX of < 3.0% was associated with any new fracture (HR 2.31, CI: 1.54-3.46). **CONCLUSIONS:** In a large convenience sample of relatively young HIV-infected U.S. adults, a FRAX score ≥3%, low baseline BMD, history of prior fracture, and increased age were significantly associated with elevated risk of new fracture.

PIN21

THE IMPACT OF FIBROSIS ON THE RISK OF LONG-TERM MORBIDITY AND MORTALITY IN CHRONIC HEPATITIS C PATIENTS TREATED IN THE VETERANS ADMINISTRATION HEALTH CARE SYSTEM

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OBJECTIVES: Clinicians need a reliable, non-invasive predictor of future liver-related events with which to monitor disease progress and alert untreated patients to start therapy before treatment effectiveness is compromised. This study documents the impact of FIB-4 > 3.25 [probable fibrosis] on mortality risk and evaluates if treatment effectiveness is compromised if initiated after fibrosis is detected. **METHODS:** Data from a large sample of U.S. veterans were selected using the Veterans Administration's HCV clinical registry [CCR] which compiles patients EMR data from 1999 to present. Selection criteria required data on viral genotype and sufficient laboratory data with which to calculate FIB-4 scores. Time to death was analyzed with Cox proportional hazards models using treatment before/after FIB-4 > 3.25, age, genotype, gender, race, diabetes and other patient characteristics as independent risk factors. **RESULTS:** 150,958 out of 360,857 unique HCV CCR patients met study inclusion criteria. Patients with FIB-4 > 3.25 experienced a 4-fold increase in the risk of death [H.R.=4.23 (4.08-4.38)]. Initiating treatment significantly reduced this risk 25% both before the development of fibrosis [H.R.=0.748 (0.70-0.78) and after [H.R.= 0.7537 (0.71-0.81)][p=0.6896 for the difference]. **CONCLUSIONS:** A FIB-4 score > 3.25 is a strong predictor of mortality risk in patients with HCV and the effectiveness of treatment is not adversely impacted once patients cross this threshold for monitoring fibrosis. While our results may under-estimate treatment effectiveness if treatment initiation is correlated with illness severity, an FIB-4 > 3.25 can be used to motivate patients to initiate treatment before effectiveness in impaired.

PIN22

SAFETY OF AZITHROMYCIN THERAPY IN PATIENTS WITH HIGH CARDIOVASCULAR RISK: A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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